

ENVIRONMENTAL PROTECTION AGENCY

LDWSF
1.11
8/14/73REPLY TO
ATTN OF:

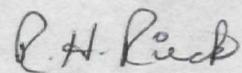
Region X Laboratory

DATE: 14 August 1973

SUBJECT: Analysis of Duwamish River Sediment for PCB

TO: • A. R. Gahler
Supervisory Chemist
EPA Region X Laboratory

The analysis of Duwamish River Sediment for PCB has been completed and the data are shown in the attached table. The results represent the average of several values obtained with different columns in different gas chromatographs.


R. H. Rieck

R. H. Rieck

cc: F. L. Nelson✓
J. Sainsbury
J. Blazevich

arg/jp



ANALYSIS OF DUWAMISH RIVER SEDIMENT SAMPLES FOR PCB

(6-5-73)

<u>Sample Identification</u>	<u>% Solids</u>	<u>Concentration</u>
core #1 - 1 meter	51.5	1.0
core #1 - surface	58.1	.2
core #2 - surface	57.6	.3
core #2 - 1 meter - 6"	48.1	1.9
core #3 - surface	54.3	.4
core #3 - 1 meter	54.1	3.0
core #4 - surface	55.1	1.4
core #4 - 1 meter - 6"	41.2	.5
core #5 - surface	58.0	1.6
core #5 - 1 meter - 6"	63.4	.4
core #6 - surface	57.0	1.1
core #6 - 1 meter	56.1	.6
core #7 - surface	49.9	1.8
core #7 - 1 meter	53.5	.6
core #8 - surface	51.0	1.8
core #8 - 1 meter	51.0	.3
core #9 - surface	48.9	1.6
core #10 - surface	50.4	1.8
core #10 - 1 meter	62.6	.5
core #11 - surface	56.4	3.6
core #11 - 1 meter	54.2	.1
core #12 - surface	66.0	.4
core #16 - surface	38.2	1.6
core #16 - 1 meter	60.8	.3
core #13 - surface	16.7*	1.2
core #13 - surface	70.0	.4
core #14 - surface	68.7	.1
core #15 - surface	14.1*	4.2

Concentrations expressed in ppm (micrograms per gram) on a dry weight basis.

* Samples contained large concentration of wood chips. Samples diluted about four fold with water prior to homogenation.

SEATTLE HARBOR - DUWAMISH WATERWAY

EPA BOTTOM SAMPLE MATERIAL ANALYSIS*
Core Samples Collected 5 June 1973

Sample Number	Location Mile/Station	EPA Lab Number	Core Depth	V S	C O D	KJELDAHL NITROGEN %	O & G %	MERCURY %	LEAD %	CADMIUM %	ZINC %	P C B %
	EPA CRITERIA			6.0	5.0	0.10	0.15	0.001	0.005	-	0.005	-
1	MI 4.7 St 247+00	601 602	1 meter Surface	10.3 5.8	12.2 7.2	0.16 0.12	0.16 0.10	0.00008 0.00003	0.006 0.004	0.0003 0.0002	0.018 0.012	.00010 .00002
2	MI 4.4 St 230+00	603 604	Surface 1 meter	6.3 11.5	6.3 13.6	0.10 0.24	0.09 0.35	0.00003 0.00005	0.003 0.007	0.0002 0.0003	0.010 0.019	.00003 .00019
3	MI 4.2 St 220+00	605 606	Surface 1 meter	7.9 9.6	8.1 9.7	0.12 0.13	0.09 0.21	0.00004 0.00004	0.004 0.006	0.0001 0.0002	0.010 0.016	.00004 .00030
4	MI 3.7 St 194+00	607 608	Surface 1 meter	6.5 6.0	7.0 7.1	0.11 0.12	0.12 0.12	0.00003 0.00003	0.005 0.004	0.0002 0.0002	0.014 0.017	.00014 .00005
5	MI 3.2 St 163+00	609 610	Surface 1 meter	6.8 5.2	6.6 4.4	0.03 0.06	0.10 0.09	0.00002 0.00003	0.004 0.002	0.0002 0.0001	0.018 0.009	.00016 .00004
6	MI 3.2 St 174+00 (Left of Channel)	611 612	Surface 1 meter	7.1 7.9	6.9 8.2	0.10 0.13	0.11 0.16	0.00003 0.00003	0.005 0.003	0.0002 0.0002	0.016 0.013	.00011 .00006
7	MI 2.45 St 129+00	613 614	Surface 1 meter	8.4 9.0	8.9 8.5	0.12 0.15	0.41 0.29	0.00004 0.00002	0.007 0.005	0.0002 0.0002	0.023 0.018	.00018 .00006
8	MI 1.7 St 90+00 (Right of Channel)	615 616	Surface 1 meter	8.3 8.0	8.2 8.4	0.12 0.13	0.28 0.34	0.00003 0.00004	0.017 0.008	0.0005 0.0003	0.670 0.025	.00018 .00003
9	MI 1.7 St 90+00	617 618	Surface Surface	8.7 9.9	9.3 16.1	0.19 0.35	0.45 0.61	0.00004 0.00004	0.030 0.020	0.0006 0.0010	0.081 0.040	.00016

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EPA BOTTOM SAMPLE MATERIAL ANALYSIS*

Core Samples Collected 5 June 1973

Sample Number	Location Mile/Station	EPA Lab Number	Core Depth	V S	C O D	KJELDAHL NITROGEN		O & G	MERCURY	LEAD	CADMIUM	ZINC	P C B
						%	%						
	EPA CRITERIA			6.0	5.0	0.10	0.15	0.001	0.005	-	0.005	-	-
10	Mi 1.1 St 60+00 (Right of Channel)	619 620	1 meter Surface	4.9 7.1	6.8 9.5	0.09 0.14	0.05 0.32	0.00001 0.00004	0.002 0.020	0.0002 0.0005	0.007 0.025	0.00005 0.00018	
11	Mi 1.1 St 59+00 (Left of Channel)	621 622	1 meter Surface	7.3 3.6	9.4 2.8	0.16 0.06	1.94 0.09	0.00004 0.00004	0.015 0.007	0.0004 0.0001	0.022 0.013	0.00001 0.00036	
12	Mi 0.6 St 32+50	623 624	Surface 1 meter	11.7 5.7	19.8 6.7	0.31 0.09	1.63 0.13	0.00004 0.00005	0.035 0.006	0.0008 0.0002	0.060 0.014	0.00004 -	
13	Mi 0.4 St 18+50	625 626	Surface Surface	17.1 3.7	23.9 7.2	0.16 0.03	0.74 0.01	0.00007 0.00007	0.025 0.016	0.0003 0.0001	0.046 0.016	0.00012** 0.00004	
14	Mi 0.25 St 13+00	627	Surface	4.8	0.2	0.01	0.03	0.00001	0.011	0.0001	0.021	0.00001	
15	Mi 0.07 St 3+50	628	Surface	13.7	20.6	0.15	0.92	0.00015	0.028	0.0003	0.066	0.00042**	

* Percent Dry Weight Basis

** Samples contained large concentration of wood chips. Samples diluted about fourfold with water prior to homogenization.